



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Masayuki SUZUKI et al.

Application No.: 10/670,337

Filed: September 26, 2003

Docket No.: 117330

For: HEATER INSPECTION APPARATUS AND SEMICONDUCTOR
MANUFACTURING APPARATUS HAVING HEATER INSPECTION APPARATUS
MOUNTED THEREON

**PETITION UNDER 37 C.F.R. §1.53(e)(2) - THE APPLICATION WAS
COMPLETE AS FILED ON SEPTEMBER 26, 2003**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Petition is submitted in response to the December 24, 2003 Notice to File Missing Parts (copy attached). For the reasons discussed in detail below, this Notice is in error because this application as filed on September 26, 2003 included page 18 of the specification (copy attached).

Background

This application, including 27 pages of the specification, claims, drawings and application data sheet was filed in the U.S. Patent and Trademark Office on September 26, 2003. Attached to this communication as Appendix A is a copy of the U.S. Patent and Trademark Office acknowledgment of receipt and Application Transmittal bearing the date stamp of September 26, 2003. Furthermore, attached to this communication as Appendix B is a copy of the U.S. Patent and Trademark Office post card. Please note that both the

acknowledgment of receipt and the post card indicate that 27 pages of the specification were included with the application as filed.

Page 18 was part of the 27 pages. If page 18 was missing, only 26 pages would have been filed. However, the U.S. Patent and Trademark Office twice acknowledged receipt of 27 pages.

In view of the foregoing, it is respectfully submitted that page 18 was originally filed in the U.S. Patent and Trademark Office on September 26, 2003, and that page 18 was subsequently misplaced.

Relief Requested

The U.S. Patent and Trademark Office is respectfully requested to: 1) withdraw the assertion that page 18 was omitted from the specification as filed; 2) acknowledge that page 18 was received on September 26, 2003; and 3) accord this application a filing date of September 26, 2003, including page 18.

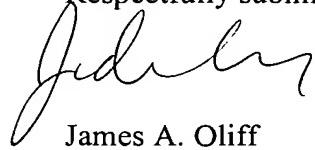
For the convenience of the Patent Office, a copy of page 18 is attached so that the complete application can be processed for substantive examination.

* * * *

Attached is our Check No. 151394 in the amount of \$130.00 for the Petition fee under 37 C.F.R. §1.17(h). Furthermore, the U.S. Patent and Trademark Office is authorized to debit deposit account number 15-0461 in the amount necessary to effect the filing of this Petition. However, it is respectfully submitted that the Petition fee should be refunded because of the Patent Office error.

The appropriate official of the U.S. Patent and Trademark Office is invited to contact the undersigned if there are any questions regarding this matter.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jude L. Cooney
Registration No. 54,045

JAO:JLC/cmf

Attachments: Appendix A (copy of U.S.P.T.O. date-stamped acknowledgment of receipt)
Appendix B (copy of U.S.P.T.O. post card)
Copy of Notice to File Missing Parts
Copy of Page 18 of the Specification

Date: February 24, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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PTO RECEIPT FOR FILING OF PAPERS

Mail Room (Regular Delivery)

The following papers have been filed:

Appln & ck 146749 \$750, Prelim, 27 pp spec/claims (8)/abst., 7 sheets drwgs (Figs 1-8)

Name of Applicant: Masayuki SUZUKI, Hideo ISHIZU

Serial No.: New U.S. Patent Application

Atty. File No.: 117330

Title (New Cases): HEATER INSPECTION APPARATUS AND SEMICONDUCTOR
MANUFACTURING APPARATUS HAVING HEATER
INSPECTION APPARATUS MOUNTED THEREON

Sender's Initials: JAO/rew

NEW APPLICATION

14 | 28



PATENT OFFICE DATE STAMP

**COPY TO BE STAMPED BY PATENT OFFICE
AND RETURNED BY MESSENGER**

APPENDIX B



FEB 24 2004

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WASHINGON, D.C.

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FEB 24 2004

PTO RECEIPT FOR FILING OF PA	
► Mail Room (Regular Delivery)	
The following papers have been filed:	
Appnt & ck 146749 \$750 Prelim, 27 pp spec/claims (8) abst., 7 sheets drwgs (Figs 1-8)	
Name of Applicant:	Masayuki SUZUKI, Hideo ISHIZU
Serial No.:	New U.S. Patent Application
Atty./File No.:	117330
Title (New Cases):	HEATER INSPECTION APPARATUS AND SEMICONDUCTOR MANUFACTURING APPARATUS HAVING HEATER INSPECTION APPARATUS MOUNTED THEREON
Sender's Initials:	JAO/rew
ASSIGNEE:	Kokusai Electric Semiconductor Service Inc.

DC voltage generated by the DC voltage generator 12 should be applied to the heater 7, when the thyristor 6 is temporarily turned off by phase control based on the power source synchronization signal obtained by the obtaining unit 11.

5 In response to the command of the CPU 17B, the DO output unit 15 urges the not-shown speaker to output the alarm indicating that the heater 7 needs replacement.

The communication I/F 16 is an interface connecting the CPU 17B and the thermoregulator 13B to a higher device or the like.

10 FIG. 6 is a flowchart showing the operation of a semiconductor manufacturing apparatus and the heater inspection apparatus shown in FIG. 5.

15 First, the AC voltage of the commercial power source 1 is applied to the heater 7 to heat the heater 7, a target temperature being, for example, 800°C (Step S101).

Next, the CPU 17B judges based on an electrical signal outputted from the thermocouple 9 that measures the temperature of the heater 7 itself whether or not the temperature of the heater 7 has reached, for example, 800°C that is the temperature at which the inspection of the heater 7 is conducted, and this judgment is repeated until the temperature of the heater 7 reaches 800°C (Step S102).

20 When the temperature of the heater 7 reaches, for example, 800°C, the CPU 17B obtains by the obtaining unit 11 the power source synchronization signal of the secondary side power source of the power source transformer 4 (Step S103).

25 The CPU 17B reads from the obtained power source synchronization signal a period during which the route from the secondary side power source of the power source transformer 4 to the heater 7 is interrupted by the thyristor 6 (a period during which the route is turned off by the thyristor 6), and during this interruption period, it executes processes in a series of Steps S104 to S109 for obtaining data for heater resistance inspection. This interruption period is, for example, of an order of several tens mm sec, and is